

LOGARITHMIC AMPLIFIER AND METHOD OF AMPLIFICATION

ABSTRACT OF THE DISCLOSURE

A demodulating logarithmic amplifier rectifies a radio frequency signal prior to
5 amplification through progressive stages. A full wave linear or squaring rectifier receives
a waveform signal at the input and provides a rectified signal that is proportional to an
envelope or a square of the envelope of the waveform signal at the output. The rectified
signal is then fed to a series of limiting amplifier stages where the signal is progressively
amplified. After each individual amplifier stage, the partially amplified signal is passed
10 through a voltage-to-current converter to create a current signal. All the current signals
are subsequently summed to produce an amplified current output signal.